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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/675,948	10/02/2003	Yasuyuki Shinkai	242388US2CONT	5892

22850 7590 02/21/2007  
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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VILLALUNA, ERIKA J

ART UNIT	PAPER NUMBER
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2852

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	02/21/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/21/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com  
oblonpat@oblon.com  
jgardner@oblon.com

**Office Action Summary**

Application No.

10/675,948

Applicant(s)

SHINKAI ET AL.

Examiner

Erika Villaluna

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19,20,23-33,35,37-43,45 and 47-52 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19,20,23-29 is/are allowed.
- 6) ☒ Claim(s) 30-33,35,37-43,45 and 47-52 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Kevin Mckinley on 2/05/07.
3. The application has been amended as follows:
  - a. Claim 35 – "according to Claim 34" has been amended to read - -  
according to Claim 30 - -.
  - b. Claim 45 – "according to Claim 44" has been amended to read - -  
according to Claim 40 - -.
  - c. Claim 47 – "according to Claim 46" has been amended to read - -  
according to claim 45 - -.

### **DETAILED ACTION**

4. The previously indicated allowability of claims 26-29, 36, and 46-49 is hereby withdrawn.

### ***Claim Rejections - 35 USC § 103***

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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6. Claims 30-32, 35, 37, 40-42, 45, 47, and 50-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita et al. (US 6,381,419 B1) in view of Menjo et al. (JP 06-230646 A).
7. Regarding claims 40-42 and 50-52, Kinoshita et al., herein Kinoshita, discloses an image forming apparatus, comprising: a main body having a receiving portion (fig. 1, receiving portion that holds each imaging unit); a plurality of imaging units (7), each imaging unit having a housing and being configured to develop electrostatic latent images with toner; a holding unit configured to hold the imaging units (structure that holds the four imaging units 7), and being detachably attached to the main body through the receiving portion; and a plurality of toner feeding devices (5) provided separately from the plurality of imaging units, each toner feeding device including a toner feeding pipe (fig. 2, pipe that extends into developing device 4, through opening 46), wherein the plurality of toner feeding devices and the plurality of imaging units are detachably engaged to each other, and each of the toner feeding pipes is configured to extend into a corresponding housing on one of the plurality of imaging units and supply toner to the imaging unit (fig. 1, each toner feeding device 5 has a toner feeding pipe extending into each developing device 4 of imaging unit 7); the toner feeding pipes are configured to protrude from the main body (fig. 1, each toner feeding pipe protrudes from the main body into the receiving portion holding each process cartridge 7) into the receiving portion when extending into a corresponding one of the plurality of imaging units; wherein the plurality of imaging units comprise four imaging units lined substantially in a row in the holding unit (fig. 1, each of the four imaging units 7 are lined in a row);

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wherein each imaging unit includes a developing device configured to develop the electrostatic latent image, and an image carrier configured to carry the electrostatic latent image.

8. Regarding claims 45 and 47, Kinoshita discloses each developing means (7) includes carrier means (1) for carrying the electrostatic latent image; and cleaning means (6) for cleaning residual toner on the respective carrier means.

9. Kinoshita does not disclose forming cyan, magenta, yellow, and black toner images, respectively.

10. Menjo et al., herein Menjo, teaches forming cyan, magenta, yellow, and black toner images, respectively, which is different from the arranged order of developing means (Abstract).

11. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kinoshita with the respective order of Menjo for the benefits of preventing color mixture caused by toner scattering (Menjo, Abstract).

12. Regarding method claims 30-32, 35, and 37, the method steps thereof are met by the operation of Kinoshita in view of Menjo as set forth above.

13. Claims 33 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita in view of Menjo as set forth above, and further in view of Takano (US 5,249,020).

14. Regarding claims 33 and 43, Kinoshita in view of Menjo discloses the invention as set forth above.

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15. Kinoshita in view of Menjo does not disclose a sealing member.

16. Takano teaches a sealing member (34B) to prevent toner from exiting the imaging unit through the aperture (32A).

17. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the imaging unit of Kinoshita in view of Menjo with the sealing member of Takano for the benefit of preventing toner leakage when the toner feeding means is not engaged with the aperture.

18. Claims 38, 39, 48 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kinoshita in view of Menjo as set forth above, and further in view of Chiesa et al. (US 5,809,376).

19. Regarding claims 48 and 49, Kinoshita in view of Menjo disclose the invention as set forth above and further, a plurality of transferring means for transferring toner images formed on the carrier means onto a recording medium. Note Kinoshita, transferring means 9 and 10 of Fig. 1.

20. Kinoshita in view of Menjo do not disclose storing means for storing respective residual toner removed by the cleaning means, the storing means provided separately from the developing means.

21. Chiesa et al., herein Chiesa, teaches a cleaning device (cleaning subassembly 80) and waste toner storage (waste toner sump subassembly 82) included in and detachable from the process cartridge (CRU 44).

22. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus of Kinoshita in view of Menjo with the

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separate storing means of Chiesa for the benefits of ease in removing or replacing only the waste toner storage unit once full.

23. Regarding method claims 38 and 39, the method steps thereof are met by the operation of Kinoshita in view of Menjo, and further in view of Chiesa, as set forth above.

***Allowable Subject Matter***

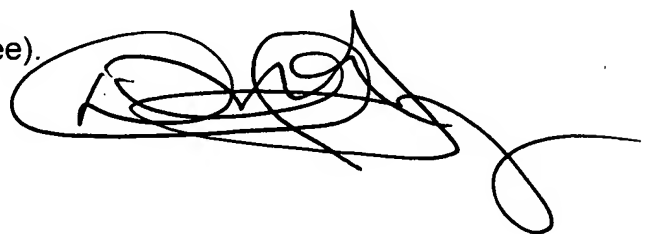
24. Claims 19, 20, and 23-29 are allowed.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erika Villaluna whose telephone number is (571) 272-8348. The examiner can normally be reached on M-F 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David M. Gray can be reached on (571) 272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be "Erika Villaluna", with a long, sweeping horizontal line extending to the right.

EV